KATS, I.S. (Odessa)

Behavior of the solutions to a linear second-order differential equation (with reference to a paper by E.Hille). Mat. sbor. 62 no.4:476-495 D '63. (MIRA 17:4)

KATS, I.S.

Corrections to I.S.Katz paper "multiplicity of the spectrum of a second-order differential operator and expansions in eigenfunctions." Izv. AN SSSR. Ser. mat. 28 no. 4:951-952 Jl-Ag '64. (MIRA 17:9)

KATS, I.S.

Behavior of spectral functions of differential systems with boundary conditions at a singular end point. Dokl. AN SSSR 157 no.1: 34-37 Jl '64 (MIRA 17:8)

1. Predstavleno akademikom I.G. Petrovskim.

KATS, I.S.

Use of the method of variable directions in solving the third boundary value problem. Dop. AN URSR no.9:1117-1120 '65.
(MIRA 18:9)

1. Institut kibernetiki AN UkrSSR.

KATS, I.S. (Odessa)

Existence of spectral functions of generalized differential systems of the second order with boundary conditions at the singular end. Mat. sbor. 68 no.2:174-227 O '65. (MIRA 18:10)

KATS, I.S.

Some cases of the uniqueness of solution to the inverse problem of strings with a boundary condition at the singular end. Dokl. AN SSSR 164 no.5:975-978 O '65. (MIRA 18:10)

1. Odesskiy tekhnologicheskiy institut im. M.V.Lomonosova.
Submitted March 11, 1965.

L 16156-66 EWT(d) IJP(c)
ACC NR: AF5024777 SOURCE CODE: UR/0021/65/000/009/1117/1120

AUTHOR: Kats, I. S.

ORG: Cybernetics Institute, AN URSR (Institut kibernetiki AN URSR)

TITLE: Solution of the third boundary value problem by the method of variable directions

SOURCE: AN UkrRSR. Dopovidi, no. 9, 1965, 1117-1120

TOPIC TAGS: boundary value problem, calculation, variational method, elliptic differential equation

ABSTRACT: The method of variable directions developed by J. Douglas (Numer. Math., 4, 41, 1962) and A. Samarskiy and B. Andreev (Journal of math-physic computations, 3, 1006 1963) was extended to the case of the third boundary value problem for a self-adjoint elliptical equation with variable coefficients. With this method the required accuracy was attained in $O\left[\ln\left(\frac{1}{\pi}\right)\right]$ iterations. Orig. art has: 12 formulas.

Card 1/2

L 16156-66

ACC NR: AP5024777 0

SUB CODE: 12/ SUBM DATE: 11Jul64/ ORIG REF: 001/ OTH REF: 004

Card 2/2

KATS, I.S.; MAYSEYGOLZ, M.D. [Maierholz, M.D.]

Method of finding zeroes of analytic functions. Dop. AN URSR no.12:1563-1565 (MIRA 19:1)

1. Institut kibernetiki AN UkrSSR. Submitted December 23, 1964.

L 47160-66 EWT(d) IJP(c)

ACC NR: AR6000701 SOURCE CODE: UR/0124/65/000/009/A010/A011

35

AUTHOR: Kats, I. Ya. 16

B

TITLE: Asymptotic stability as a whole for stochastic differential equations

SOURCE: Ref. zh. Mekhanika, Abs. 9A95

REF SOURCE: Tr. Mezhvuz. konferentsii po prikl. teorii ustoychivosti dvizheniya i analit. mekhan., 1962. Kazan', 1964, 91-92

TOPIC TAGS: stability criterion, stochastic process, differential equation, ASYMPTOTIC PROPERTY

ABSTRACT: The stability problem is considered for the total probability of stochastic systems and the stability criterion is given, based on utilizing two Lyapunov functions. A theorem is given on the stability of the total probability analogous to the theorem of ordinary differential equation stability, proved by Ye. A. Barbashin and N. N. Krasovskiy. S. V. Kalinin [Translation of abstract]

SUB CODE: 20, 12

Card 1/1 egh

KATS, I.Ya.

Stability on a first approximation of systems with random parameters. Mat.zap.Ural.mat.ob-va UrGu 3 no.2:30-37 '62.
(MIRA 19:1)

KATS, I. Ya.

"Asymptotic stability of stochastic differential equations,"

Report presented at the Conference on Applied Stability-of-Motion Theory and Analytical Mechanics, Kazan Aviation Institute, 6-8 December 1962

ACCESSION NR: AP4027596 S/0040/64/028/002/0366/0372

AUTHOR: Kats, I. Ya. (Sverdlovsk)

TITLE: Stability in the large of stochastic systems

SOURCE: Prikladnaya matematika i mekhanika, v. 28, no. 2, 1964, 366-372

TOPIC TAGS: stability in the large, stochastic system, stability in probability, Lyapunov function, perturbed motion, Lipschitz condition, Markov random process, asymptotic stability, Wiener process, Gaussian process

ABSTRACT: The author defines the concepts of stability in probability, and asymptotic stability in the large, of the solution x = 0 of

$$dx/dt = f(t, x, y(t)) \qquad (1)$$

where x is an n-dimensional vector of phase coordinates of the system, the vector-function $f = \{f_1, \ldots, f_n\}$ is continuous in all variables in the region

$$-\infty < x_i < +\infty, \quad t > 0, \quad y \in Y \qquad (2)$$

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ACCESSION NR: AP4027596

satisfies Lipschitz conditions in this region in the variables x_j, y and is bounded for all $y \in Y$ in each finite region $||x|| \leq N$ ($||x|| = \max\{|x_1|, \ldots, |x_n|\}$). The function y(t) is assumed to be a Markov random process which is also assumed to be either purely discontinuous or continuous. The author proves a theorem giving sufficient conditions for the unperturbed motion x = 0 of system (1) to be asymptotically stable in the large in probability. "The author thanks N. N. Krasovskiy, who proposed the subject and offered many very valuable comments." Orig. art. has: 40 formulas.

ASSOCIATION: none

SUBMITTED: 06Dec63 DATE ACQ: 28Apr64 ENCL: 00

SUB CODE: MM NO REF SOV: 011 OTHER: 002

Card 2/2

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S/040/60/024/005/004/028
C111/C222

AUTHORS: Kats, I.Ya., and Krasovskiy, N.N. (Sverdlovsk)

TITLE: On the Stability of Systems With Random Parameters

PERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol.24, No.5 pp.809-823

TEXT: The authors consider the equations of the disturbed motion

(1.1) $dx/dt = f(x,t,y(t))$,

where $x = \{x_1,\dots,x_n\}$, $f = \{f_1,\dots,f_n\}$, the f_i are continuous with respect to all arguments, and in

(1.3) $\|x\| < H, \quad t \geq t_0$,

where $\|x\| = \max(|x_1|,\dots,|x_n|)$ it holds:

(1.2) $|f_i(x'',t,y,(t))-f_i(x',t,y(t))| \leq L\|x''-x'\|$.

Here $y(t)$ is a homogeneous Markov chain with a finite number of states, i.e. in every moment, $y(t)$ can assume one of the values y_i out of a finite set of values $Y(y_1,\dots,y_r)$, where the probability $p_{ij}(\Delta t)$ of the

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On the Stability of Systems With Random Parameters

change $y_i \to y_j$ in the time Δt satisfies the condition

(1.4) $$p_{ij}(\Delta t) = \alpha_{ij}\Delta t + o(\Delta t) \qquad (i \neq j) \qquad (\alpha_{ij} = \text{const}),$$

where $o(\Delta t)$ is infinitely small of higher order than Δt. It is assumed that $y_i = i$ $(i=1,2,\ldots r)$ and that

(1.5) $$f_i(0,t,y(t)) \equiv 0 \qquad (y \in Y,\ t \geq 0).$$

A random vector function $\{x(x_0,t_0,y_0;t), y(t_0,y_0;t)\}$ the realizations $\{x^{(p)}(x_0,t_0,y_0;t), y^{(p)}(t_0,y_0;t)\}$ of which satisfy (1.1) is called a solution of (1.1).

The authors investigate the probability stability (cf. (Ref.5)) and the asymptotic probability stability of the solution $x = 0$ of (1.1). The conditions of stability are given in terms of Lyapunov functions. A function $v(x,t,y)$ is called positive definite if $v(x,t,y) \geq w(x)$ for all $y \in Y$, $t \geq t_0$, where $w(x)$ is positive definite in the sense of

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On the Stability of Systems With Random Parameters

Lyapunov; $v(x,t,y)$ is said to be of constant sign if in (1.3) it cannot assume values of a distinct sign. A function $v(x,t,y)$ admits an infinitely small least upper bound if there exists a continuous $W(x)$ so that $v(x,t,y) \leq W(x)$, $W(0) = 0$ for $\|x\| < H$, $t \geq t_0$, $y \in Y$.

A function $v(x,t,y)$ admits an infinitely large greatest lower bound in $\|x\| < H$ if $w(x)$ (cf. above) satisfies the condition $\lim w(x) = \infty$ for $\|x\| \to H$. Let $M[\psi(\alpha_1,\ldots,\alpha_n); \alpha_1,\ldots,\alpha_n/\beta]$ denote the mathematical expectation of the function $\psi(\alpha_1,\ldots,\alpha_n)$ of the random variable $\alpha_1,\ldots,\alpha_n$ under the conditions β. Let $M[v] \equiv M[v(x(t),t,y(t))$; $x(t)$ $y(t)/x(t) = \xi$, $y(t) = \eta$, where $\{x(t), y(t)\}$ is the solution generated for $t = \tau$ by the initial conditions $x = \xi$, $y = \eta$, be the mathematical expectation of the random function $v(x(\xi, \tau, \eta; t), t, y(\xi, \tau, \eta; t))$ for $t \geq \tau$. The limit value

$$(2.1) \quad \frac{dM[v]}{dt} = \lim_{t \to \tau + 0} \frac{1}{t-\tau} \{M[v(x(t),t,y(t)); x(t), y(t)/x(\tau) = \xi, y(\tau) = \eta] - v(\xi, \eta)\}$$

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is denoted as the derivative $\frac{dM[v]}{dt}$ of v for (1.1) in x= , y= , t= .

Theorem 3.1: If for (1.1) a positive definite function v(x,t,y) can be given so that $\frac{dM[v]}{dt}$ for (1.1) is of constant negative sign then the solution x = 0 is probability stable.

Theorem 3.2: If for (1.1) there exists a positive definite v(x,t,y) which admits an infinitely small least upper bound, and the derivative of which for (1.1) is negative definite in (1.3) then for every number $p(H) < 1$ there exists a number H_o so that the solution x = 0 of (1.1) is p(H)-asymptotically stable with respect to the disturbances out of the region

(1.9) $\|x_o\| < H_o$.

(A solution is called p(H)-asymptotically stable with respect to initial disturbances of (1.9) if it is probability stable and besides $\lim p_t(\|x\| < \infty) \geq 1-p(H)$ for $t \to \infty$, where $p_t(\|x\| < \infty)$ is the probability that for $t > t_o$ it holds $\|x\| < \infty$, where $y_o \in Y$).

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On the Stability of Systems With Random Parameters

For the case H = ∞ the authors obtain results corresponding to those of (Ref.4).
Then the authors consider systems

(5.1) $dx/dt = A(t,y)x+R(x,t,y)$,

where the elements of the matrix $A(t,y)$ for all $y \in Y$ are continuous bounded functions of the time, while with respect to the $R_i(x,t,y)$ it is assumed that in (1.3) and for all $y \in Y$ it holds

(5.2) $|R_i(x,t,y)| \leq \gamma \|x\|_2^2$ (γ = const > 0),

where $\|x\|_2 = \sqrt{x_1^2+\ldots+x_n^2}$.

Beside of (5.1) the authors consider the system of the first approximation

(5.3) $dx/dt = A(t,y)x$.

Theorem 5.1: If the solution of (5.3) is exponentially stable in the mean then the corresponding solution of (5.1) is probability stable; furthermore: for every p(H) the solution x = 0 is p(H)-asymptotically stable for arbitrary R(x,t,y) which in (1.3) satisfy the condition (5.2)
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On the Stability of Systems With Random Parameters

if $\varkappa$ is sufficiently small (the solution x = 0 of (1.1) is called exponentially stable in the mean if for arbitrary initial conditions from (1.3) there exist constants B and α so that for all $t \geq t_0$ it holds

(4.5) $M\left[\|x(t)\|_2^2 ; x(t)/x_0, y_0\right] \leq B\|x_0\|_2^2 \exp(-\alpha(t-t_0))$.

The authors consider the stationary linear system

(6.1) $dx/dt = A(y)x$,

Theorem 6.1: If the solution x = 0 of (6.1) is asymptotically stable in the mean (i.e. stable in the quadratic mean (cf. (Ref. 5)) and besides for all solutions with the initial conditions $\|x_0\|_2 \leq H_0$ satisfying the condition $\lim M\left[\|x(t)\|_2^2\right] = 0$ for $t \to \infty$), then for every given positive definite form w(x,y) there exists one and only one form v(x,y) of the same order which satisfies the equation

(6.2) $dM[v]/dt = -w(x,y)$;

this form is always positive definite.

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On the Stability of Systems With Random Parameters

Theorem 6.2: If the solution $x = 0$ of the system (6.1) is asymptotically stable in the mean then the corresponding solution of the equation

(6.11) $dx/dt = A(y)x+R(x,t,y)$

is p(H)-asymptotically stable if (5.2) is satisfied, and γ is sufficiently small.

Finally the stability for random continuously acting disturbances is considered briefly.

There are 11 references: 7 Soviet and 4 American.

[Abstracter's note: (Ref.4) concerns I.E.Bertram and P.E.Sarachik, Proc. Int.Symp. on Circuit and Information Theory, 1959 . (Ref.5) concerns J.Doob, Stochastic Processes.]

SUBMITTED: April 13, 1960

Card 7/7

39416
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B166/B112

16.8000

AUTHOR: Kats, I. Ya.

TITLE: Stability of certain nonlinear automatic control systems

PERIODICAL: Referativnyy zhurnal. Matematika, no. 6, 1962, 49-50, abstract 6V250 (Tr. Ural'skogo elektromekhan. in-ta inzh. zh.-d. transp., no. 2, 1959, 59-69)

TEXT: An automatic control system is examined which has one controller and a nonlinear servomotor whose differential equations in the canonical form according to A. I. Lur'e have the form

$$\dot{z}_\varrho = \lambda_\varrho z_\varrho + f(\sigma) \quad (\varrho = 1, 2, \ldots, n);$$

$$\sigma = \sum_{\varrho=1}^{n} \beta_\varrho z_\varrho - rf(\sigma)$$

in the case of a problem of indirect control with proportional feedback,

or $\dot{z}_\varrho = \lambda_\varrho z_\varrho + f(\sigma)$ $(\varrho = 1, 2, \ldots, n)$,

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Stability of certain nonlinear ...

$$\sigma = \sum_{Q=1}^{n} \gamma_Q z_Q$$

in the case of a direct control process. The problem posed is to find conditions which can be imposed on the parameters of the system, sufficient for the zero solution to be asymptotically stable with any initial offsets and with any choice of function f (σ) provided it satisfies the conditions: $\sigma f(\sigma) > 0$ when $\sigma \neq 0$, $f(0) = 0$ (so-called absolute stability). A necessary condition for absolute stability is obtained:

$$z + \sum_{Q=1}^{n-1} \frac{\beta_Q}{\lambda_Q} > 0.$$

Sufficient conditions of absolute stability for a certain class of control systems are examined; a number of theorems are proved which enable the absolute stability to be judged by the form of the canonical equations of the control process. [Abstracter's note: Complete translation.]

Card 2/2

KATS, I. Ya., inzh.

The 2H58 heavy-duty universal radial drilling machine. Mashinostroenie no.5:114-115 S-O '62. (MIRA 16:1)

1. Odesskiy zavod radial'no-sverlil'nykh stankov.

(Drilling and boring machinery)

KATS, I.Ya.

The 2N58 heavy universal radial drilling machine. Biul.tekh.-ekon.-inform.Gos.nauch.-issl.inst.nauch. i tekh.inform. no.4:34-36 '62.
(MIRA 15:7)

(Drilling and boring machinery)

KHABAS, I.M. [deceased]; TER-OSIPOVA, M.Z.; KATS, I.Z.

Effect of the interval between the first and the second inoculation of sorbed diphtheria anatoxin on the effectiveness of antitoxic immunity. Zhur.mikrobiol.epid. i immun. 30 no.5:77-79 My '59. (MIRA 12:9)

1. Iz Leningradskogo instituta vaktsin i syvorotok.
(DIPHTHERIA, immunol.
eff. of spacing of anatoxin inoculation on immun. reactions in animals (Rus))

KHARAS, I.M. [deceased]; KATS, I.Z.; FADEYEVA, O.A.

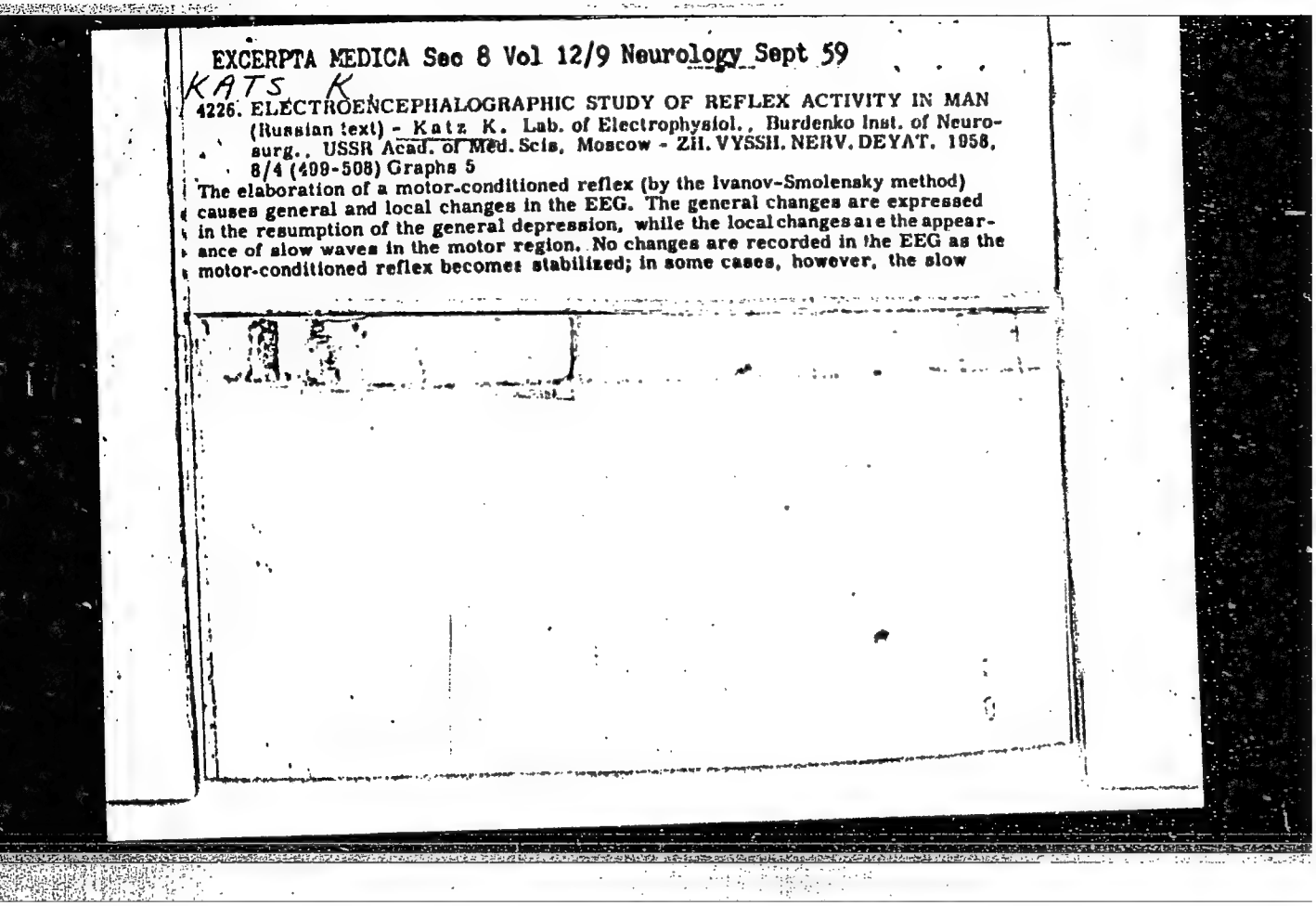
Fractional analysis of diphtheria anatoxin. Nauch. osn. proizv. bakt. prep. 10:77-90 '61. (MIRA 18:7)

1. Leningradskiy institut vaktsin i syvorotok.

UGLEVA, A.I.; KHABAS, I.M. [deceased]; FADEYEVA, O.A.; KATS, I.Z.; TER-OSIPOVA, M.Z.; ROZHDESTVENSKAYA, V.O.

Production of purified sorbed diphtheria and tetanus anatoxin for active immunization of children. Nauch. osn. proizv. bakt. prep. 10:100-106 '61. (MIRA 18:7)

1. Leningradskiy institut vaktsin i syvorotok.



EXCERPTA MEDICA Sec 8 Vol 12/9 Neurology Sept 59

KATS K.

4226. ELECTROENCEPHALOGRAPHIC STUDY OF REFLEX ACTIVITY IN MAN (Russian text) - Katz K. Lab. of Electrophysiol., Burdenko Inst. of Neurosurg., USSR Acad. of Med. Scis, Moscow - Zh. VYSSH. NERV. DEYAT. 1958, 8/4 (499-508) Graphs 5

The elaboration of a motor-conditioned reflex (by the Ivanov-Smolensky method) causes general and local changes in the EEG. The general changes are expressed in the resumption of the general depression, while the local changes are the appearance of slow waves in the motor region. No changes are recorded in the EEG as the motor-conditioned reflex becomes stabilized; in some cases, however, the slow

waves still remain. Elaboration of differentiation causes a general depression in the EEG and sometimes slow waves of a generalized nature. A non-specific response is observed in the EEG when light, tactile and acoustic stimuli are applied (Davis, 1939; Gastaut, 1953; Bancaud, 1953), which is most pronounced in the occipital central region of both hemispheres. It reaches its maximum amplitude only after several presentations of the stimulus. Frequent stimulation leads to changes in form or the disappearance of the non-specific response. As stimulations are repeated, a generalization of the non-specific response occurs, and it may be recorded in other regions of the brain. It is pointed out that it is possible to obtain a conditioned non-specific response to time. (II, 8)

KATS, K. F.

AGRANONIK, Ye.Z., kand.tekhn.nauk; BELOV, A.N., dotsent; GLADKOV, A.M., inzh.; GLUSKIN, S.A., inzh.; IVANOV, L.V., dotsent, kand.tekhn. nauk; LIPKIN, Ye.V., kand.tekhn.nauk; NIKIFOROV, G.N., dotsent, kand.tekhn.nauk; PESENSON, I.B., inzh.; PREGER, Ye.A., dotsent, kand.tekhn.nauk; PYATOV, Ya.N., inzh.; ROKHCHIN, Ye.Z., inzh.; FEDOROV, N.F., prof., doktor tekhn.nauk; SHVARTS, M.B., inzh.; SHIGORIN, G.G., dotsent, kand.tekhn.nauk; SHIFRIN, S.M., prof., doktor tekhn.nauk; POPRUGIN, I.V., inzh., retsenzent; KATS, K.F., inzh., retsenzent; ROTENBERG, A.S., red.izd-va; VORONETSKAYA, L.V., tekhn.red.

[Manual of water-supply engineering and sewerage] Spravochnik po vodosnabzheniiu i kanalizatsii. Pod red. N.F.Fedorova. Leningrad, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 410 p. (MIRA 13:3)

1. Moscow. Gosudarstvennyy proyektnyy institut Vodokanalproyekt. Leningradskoye otdeleniye.
(Water-supply engineering) (Sewerage)

KATS, K.F. (Leningrad)

Removal of waste waters containing phenols from metallurgical and coal-tar plants. Vod. i san.tekh. no.1:17-19 Ja '59.
(MIRA 12:1)

(Sewage disposal)

ZORIN, Aleksandr Stepanovich; LOBASOV, P.D., kand.tekhn.nauk, nauchnyy red.; Prinimal uchastiye KATS, K.F., KAPLAN, M.Ya., red.izd-va; PUL'KINA, Ye.A., tekhn.red.

[Designing tailings disposal departments of dressing plants; a handbook] Proektirovanie khvostovogo khoziaistva obogatitel'nykh fabrik; spravochnoe posobie. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 115 p. (MIRA 13:3)
(Hydraulic engineering)

KROTOV, A.I.; KATS, K.M.

The effect of oxygen and oil of Chenopodium on helminths [with summary in English]. Med.paraz. i paraz.bol. 27 no.1:89-94 Ja-F '58. (MIRA 11:4)

1. Iz sektora eksperimental'noy parazitologii Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G.Sergiyev, zav. sektorom - prof. V.P.Pod"yapol'skaya)

(CHENOPODIUM, effects
on ascarides, mechanism (Rus))
(OXYGEN, effects
on ascarides, mechanism (Rus))
(ASCARIS, effect of drugs on
oxygen & oil of Chenopodium, mechanism (Rus))

PROKOF'YEV, A.A.; KATS, K.M.

Transpiration of fruit in oilseed plants. Dokl. AN SSSR 139 no.3: 744-747 Jl '61. (MIRA 14:7)

1. Predstavleno akademikom A.L. Kursanovym.
(Oilseed plants) (Plants--Transpiration)

PROKOF'YEV, A.A.; KATS, K.M.

Transpiration of fruits and inflorescences as related to the meteorological factors and the age of plants. Fiziol. rast. 10 no.2:204-211 Mr-Ap '63. (MIRA 16:5)

1. K.A. Timiriazev Institutes of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.
(Plants—Transpiration)

KROTOV, A.I.; KATS, K.M.

Egg-laying rate of ascarids in vitro as an indicator of their physiological state. Med. paraz. i paraz. bol. 32 no.3:336-338 My-Je'63 (MIRA 17:3)

1. Iz gel'mintologicheskogo otdela (zav. - prof. V.P. Pod"yapol'skaya) Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo (dir. - prof. P.G. Sergiyev) Ministerstva zdravookhraneniya SSSR.

KATS, L., Cand Biol Sci -- (diss) "Non-specific response in the ~~human~~ of human beings/ electroencephalogram in the normal case and in organic ~~strokes~~ affections of the ~~brain~~ cerebrum." Mos 1958, 14 pp (Acad Med Sci USSR)

215 copies (KL, 32-58, 107)

KATS, L., KISELEV, N.

Savings Banks

Important source of attraction of workers' savings into savings banks. N. Kiselev, L. Kats. Sov. fin. 13 No. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified

KATS, L., SHTEYNSHLEYGER, S.

Some problems in issuing credits to well-managed enterprises.
Den.i kred. 14 no.5:28-32 My '56. (MLRA 9:8)
(Credit)

KATS, L.

Laws of monetary circulation and the economic principles of monetary planning under socialism. Vop.ekon. no.6:41-52 Je '57. (MLRA 10:7)

(Fuel)

KATS, L., inzh.

Improving the efficiency of coal transportation. Zhel.dor. transp. 36 no.3:36-42 Mr '55. (MIRA 12:5)
(Coal--Transportation)

KAMYSHNIKOV, A.; KATS, L.

Assembly, operation and repair of the "Hans" gantry cranes.
Mor.flot 25 no.1:16-17 Ja '65. (MIRA 18:2)

1. Nachal'nik mekhanizatsii rayona Odesskogo porta (for Kamyshnikov).
2. Starshiy mekhanik portal'nykh kranov Odesskogo porta (for Kats).

2111 Kats, L.A.

Kontaktnaya Zpektrosvarka V Priborostroyenii. M., 1954. 20 s. s. Ill. 25 sm. (Akad. Nauk SSSP In-T Tekhn.- Ekon. Informatsii. Periodich. Informatsiya. Tema No. 31). 1.100 EKZ. B. Ts.-Ia Obl. Avt. Ne Ukazan.- (54-56473)

KATS, L. A.

25(2) PHASE I BOOK EXPLOITATION SOV/1501

Moscow. Vyssheye tekhnicheskoye uchilishche

Voprosy povysheniya dolgovechnosti tyazhelonagruzhennykh detaley mashin; sbornik statey (Problems of Increasing the Durability of Heavily Stressed Machine Parts; Collection of Articles) Moscow, Oborongiz, 1958. 94 p. (Series: Its: [Trudy] vyp. 78) 3,200 copies printed.

Ed. (Title page): E.A. Satelya, Honored Worker in Science and Technology, Doctor of Technical Sciences, Professor; Ed. (Inside book); L.A. Kats, Engineer; Ed. of Publishing House: E.A. Shekhtman; Tech. Ed.: I.M. Zudakin; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for scientists, engineers, manufacturing personnel, and instructors and students of vtuzes.

COVERAGE: This is a collection of articles dealing with the following subjects: effect of surface coatings on the dynamic strength of

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parts, surface hardening of parts by coining, effect of metal-working methods on the press-fit connection of parts, cutting of deep, accurate holes, and testing of metals under conditions of high abrasive wear. A brief annotation of each article is given in the Table of Contents. No personalities are mentioned. Bibliographic references are appended to some of the articles.

TABLE OF CONTENTS:

are investigated. Shot-peening method of hardening is also analyzed.

Saksel'tsev, V.G. Effect of Various Methods of Machining Holes With Large Length to Diameter Ratio on the Wear Resistance 84
Various methods of cutting accurate, deep holes used in hydraulic instrument machining which improve their resistance to wear are discussed.

AVAILABLE: Library of Congress

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5-14-59

KATS L.A.

Comments on the new All-Union State Standards project for asbestos-cement pipes. Stroi. truboprov. 10 no.2:33-35 F '65. (MIRA 18:5)

1. Nauchno-issledovatel'skiy institut asbesta, slyudy, asbestotsementnykh izdeliy i proyektirovaniya stroitel'stva predpriyatiy slyudyanoy promyshlennosti.

KATS, L.B.

Making hinge seats in window and door blocks. Suggested by L.B. Kats. Mats.i izobr.predl.v stroi. no.13:111-112 '59.
(MIRA 13:6)
1. Po materialam Tekhnicheskogo upravleniya Ministerstva stroitel stva BSSR, Minsk.
(Hinges)

S/191/60/000/009/003/010
B013/B055

AUTHORS: Iskra, Ye. V., Shtaykhan, G. A., Li, P. Z., Mikhaylova, A. I., Sedor, L. N., Al'shits, I. M., Esis, L. P., Popushoy, Yu. V., Krasnov, V. A.

TITLE: Glass Fiber Laminates. 12. Dyeing of Polyester Glass-reinforced Plastics

PERIODICAL: Plasticheskiye massy, 1960, No. 9, pp. 11 - 15

TEXT: The present work deals with the dyeing of glass-reinforced polyester plastics and the dyes used for this purpose. The investigation showed that polyester resins may be colored satisfactorily with azo-, anthraquinone-, and triphenyl-methane dyes, phthalocyanine pigments, and others. The results obtained with several vat dyes and direct dyes were unsatisfactory. Inorganic pigments and dyes gave less brilliant hues than organic colorants. The results of the investigation showed that most dyes retard the gelling process. This retardation, however, is comparatively insignificant so that the properties of the hardened resin are hardly affected. To obtain well-colored products, the resin is generally applied

Card 1/2

Glass Fiber Laminates. 12. Dyeing of Polyester Glass-reinforced Plastics

S/191/60/000/009/003/010
B013/B055

in two thin layers, a coat thickness of 0.4 - 0.7 mm being advisable. In practical use, structural glass-reinforced plastics are often exposed to sunlight. This necessitates the use of specially light-fast dyes. The color stability of samples was tested both in the laboratory under a PRK-4 (PRK-4) quartz lamp and in open air, on roofs in Leningrad and Moscow. The following facts were established: 1) Polyester resins turn yellowish under sunlight. This is particularly noticeable with the lighter shades. 2) Inorganic pigments are the most light-fast. Direct dyes or pigment is the most expedient way of dyeing, but cannot be repeated. It is often the case, however, that the color of some structural part dyed in this manner must be renewed owing to damage or fading. This can only be done by applying enamel or oil paint. Some recipes for decorative units are given. According to destination, structural glass-reinforced plastics may be exposed to salt water, petroleum products, mineral oils, alkalies, and acid media. The coloring of plastics was stable for 4500 h in sea water, 3 h in boiling water, 3000 h in mineral oil, 24 h in 10% H_2SO_4, and 24 h in 2% NaOH. There are

5 tables and 5 non-Soviet references.

Card 2/2

KATS, L.I.; PYATNITSKIY, A.S.

Some data on clouds in the region of the Kiev Aerometeorological Station of the Civil Air Fleet. Trudy Ukr. NIGMI no.7:153-158 '57. (MIRA 11:4)

(Kiev--Clouds)

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S/142/62/005/001/004/012
E192/E382

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6.4300

AUTHORS: Grigor'yev, M.A., Kats, L.I. and Tsimring, Sh.Ye.

TITLE: Measurement of the standing-wave ratio by means of a directional coupler and a phase-shifter at millimetre waves

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, v. 5, no. 1, 1962, 47 - 50

TEXT: A simple method of measurement of the standing-wave ratio (SWR) by means of a directional coupler in conjunction with a phase-shifter is described. The measurement system is illustrated in Fig. 1. This consists of: K - klystron oscillator; A - attenuator; ИЛ - measuring line; НО - directional coupler; Ф - phase-shifter; ПА - variable attenuator; П - plunger and УИ - an amplifier with an indicator.
It is assumed that reflections from the generator and detector can be neglected and that the phase-shifter has a constant attenuation (independent of the phase change) and does not

Card 1/3

Measurement of ....

introduce any reflections. The problem consists of finding an expression for the modulus of the reflection coefficient on the basis of the readings of the galvanometer, which is connected through a square-detector at the output of the directional coupler. It is shown that the modulus of the reflection coefficient of the load is expressed by:

$$|\Gamma| = \frac{|E_3|}{|E_1|} = |\Gamma_{23}| \frac{(\sqrt{\alpha_1} \pm \sqrt{\alpha_2})}{(\sqrt{\alpha_1^{(0)}} + \sqrt{\alpha_2^{(0)}})} . \qquad (7)$$

where α_1 and α_2 are the maximum and minimum readings of the galvanometer when the load is connected, while $\alpha_1^{(0)}$ and $\alpha_2^{(0)}$ are the maximum and minimum galvanometer readings when the load is shorted; Γ_{23} is the modulus of the reflection coefficien in the plane of the load when the latter is short-circuited. The standing-wave ratio is therefore expressed by:

Card 2/4

$$KCB = \frac{1+|\Gamma|}{1-|\Gamma|} = \frac{\sqrt{\alpha_1^{(0)}} + \sqrt{\alpha_2^{(0)}} + (\sqrt{\alpha_1} \pm \sqrt{\alpha_2})|\Gamma_{23}|}{\sqrt{\alpha_1^{(0)}} + \sqrt{\alpha_2^{(0)}} - (\sqrt{\alpha_1} \pm \sqrt{\alpha_2})|\Gamma_{23}|} . \qquad (8)$$

Measurement of ....

It is seen from Eqs. (7) and (8) that the SWR when measured by the above method is independent of the attenuation of the waveguide section which connects the measured load. This is the main advantage of the method in comparison with the method based on a measuring line. The method was compared experimentally with the measuring-line method and it was found that the results were in good agreement. However, the possibilities of the method have not been fully investigated due to the fact that its errors have not been analyzed in detail. There are 2 figures.

ASSOCIATION: Kafedra obshchey fiziki Saratovskogo gos. universiteta im. N.G. Chernyshevskogo (Department of General Physics of Saratov State University im. N.G. Chernyshevskiy)

SUBMITTED: April 21, 1961

Card 3/4

L 9977-63 EPF(c)/EPR/EWP(j)/EWT(l)/EWT(m)/BDS/ES(s)-2--AFFTC/
ASD/ESD-3/SSD--Pr-4/Ps-4/Pc-4/Pi-4/Pl-4/Pt-4--IJP(C)/RM/MAY/WW

ACCESSION NR: AP3000329 S/0142/63/006/002/0143/0147

AUTHOR: Kats, L. I. ; Traytel'man, L. A.

TITLE: Using the bridge interferometer for determining refraction index of dielectrics at millimeter wavelengths

SOURCE: Izv. VUZ: Radiotekhnika, v 6, no. 2, 1963, 143-147

TOPIC TAGS: interferometer, bridge interferometer, refraction index at mm waves

ABSTRACT: Characteristics of dielectrics at mm wavelengths are important; they have been measured by cavity-resonator methods at 8 mm and up and by optical methods at 1 mm. Complicated and expensive optical equipment can be eliminated by the use of a bridge interferometer (Enclosure, Fig 1). A theory developed earlier for a purely optical interferometer is considered applicable (Kry*lov, K. I.; Rudakov, V. N., Using the Michelson's interferometer for determining electrical parameters of materials at superhigh frequencies, Izv. LETI im. V. I. Ul'yanova, 1958, 36, p 139). The equipment used in the bridge-

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L 9977-63
ACCESSION NR: AP3000329

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interferometer experiments is described, and the refractive index of fluoroplastic, ebonite, plexiglas, and polysterene measured at 4.12, 3.15, and 2.98 mm is presented (Enclosure, Table 1). Dimensions of specimen plates: 100 x 150 mm, 1-, 5-, and 8-mm thick. The bridge-interferometer method is considered promising despite some difficulties involved in adjusting the system for measurements. Orig. art. has: 3 equations, 2 figures, and 1 table.

ASSOCIATION: NII mekhaniki i fiziki pri Saratovskom Gosuniversitete im. N. G. Cherny*shevskogo (NII of Mechanics and Physics, Saratov State University)

SUBMITTED: 30Mar62 DATE ACQ: 13Jun63 ENCL: 02

SUB CODE: CO,MA NR REF SOV: 004 OTHER: 005

Card 2/4

L 9977-63
ACCESSION NR: AP3000329

ENCLOSURE: 1

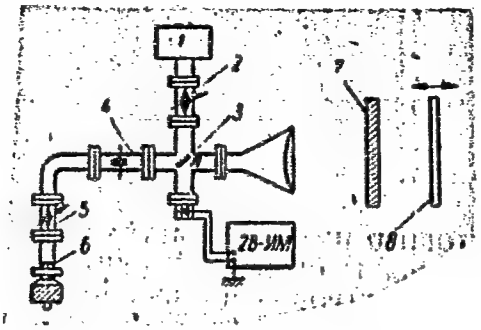

Fig 1. Block-diagram of the bridge interferometer for refractive-index measurements.

1 - Oscillator; 2 - 5 - attenuators;
3 - double-tee junction; 4 - matcher;
6 - plunger; 7 - specimen;
8 - movable reflector.

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ACCESSION NR: AP3000329

ENCLOSURE: 2

Table 1

Material tested	Refractive index		
	$\lambda = 4{,}12$ мм	$\lambda = 3{,}15$ мм	$\lambda = 2{,}98$ мм
Fluoroplastic	$1{,}44 \pm 0{,}03$	$1{,}46 \pm 0{,}02$	$1{,}46 \pm 0{,}03$
Ebonite	$1{,}64 \pm 0{,}07$	$1{,}63 \pm 0{,}07$	$1{,}65 \pm 0{,}06$
Plexiglas	$1{,}59 \pm 0{,}07$	$1{,}60 \pm 0{,}06$	$1{,}59 \pm 10^{-}$
Polystarene	$1{,}59 \pm 0{,}06$	$1{,}58 \pm 0{,}05$	$1{,}57 \pm 0{,}05$

nh/ja

Card 4/4

ACCESSION NR: AP4042519 S/0109/64/009/007/1214/1222

AUTHOR: Artem'yev, V. N.; Kats, L. I.

TITLE: Effect of frequency on the attenuation of periodic delay structures

SOURCE: Radiotekhnika i elektronika, v. 9, no. 7, 1964, 1214-1222

TOPIC TAGS: delay line, delay structure, periodic delay structure, periodic waveguide

ABSTRACT: The theoretical and experimental investigation of the group velocity and attenuation of a "flat-comb"-type delay structure is reported. The effect of the geometry of a millimeter-wave-passband delay structure on its attenuation is explored; a configuration having minimum attenuation is found. Formulas are developed on the basis of P. N. Butcher's dispersion equations (Proc. IEE, part B, 1956, 103, 9, 301) for perfect and lossy identical waveguides. The effects of the phase shift and attenuation on the Q-factor, for various b/d (slot width to the

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ACCESSION NR: AP4042519

period, pitch 2d = 0.35 m), were estimated and experimentally determined (curves supplied), as was the effect of the phase shift on the group velocity. It is concluded that, for phase shifts exceeding 0.3π, the thinnest possible plates should be used in the delay structure. "The authors wish to thank P. V. Golubkov for his attention to the work." Orig. art. has: 6 figures and 18 formulas.

ASSOCIATION: none

SUBMITTED: 28Apr63 ENCL: 00

SUB CODE: EC NO REF SOV: 004 OTHER: 005

Card 2/2

L 45445-66 EWT(1) IJP(c) WW

ACC NR: AR6017266 SOURCE CODE: UR/0058/65/000/012/H034/H035

41

AUTHOR: Kats, L. I.

B

TITLE: Possibility of expanding the frequency range of a diffraction lattice

SOURCE: Ref. zh. Fizika, Abs. 12Zh241

REF SOURCE: Tr. molodykh uchenykh. Saratovsk. un-t. Vyp. fiz. Saratov, 1965, 61-64

TOPIC TAGS: frequency range expansion, diffraction lattice, wavelength diffraction, wavelength measurement, wavelength reflection, SPECTROMETER, SPECTROSCOPY

ABSTRACT: A spectrometer using the diffraction-lattice principle in the mm-wave range is discussed. The possibility is shown of applying a diffraction reflection for wavelength measurement over a wider range λ/a (a is the distance between the plates) than for the diffraction pattern obtained as a result of energy passing through the lattice. The measurement accuracy may be of the order of hundredths of one percent. [Translation of abstract] [AM]

SUB CODE: 20/ SUBM DATE: none/

Card 1/1

L 13166-66 EWD/EWT(l)/ESC(k)-2/T/EWP(k)/EWA(m)-2/EWA(h) SCTB/IJP(n) WO
ACC NR: AP6001585 SOURCE CODE: UR/0120/65/000/006/0165/0167

AUTHOR: Sklyarov, Yu. A.; Sedel'nikov, V. A.; Kats, L. I.

ORG: Scientific Research Institute of Mechanics and Physics, SGU, Saratov (Nauchno-issledovatel'skiy institut mekhaniki i fiziki SGU)

TITLE: Absolute bolometric system for measuring continuous-laser output

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1965, 165-167

TOPIC TAGS: bolometer, infrared bolometer, radiation measurement

ABSTRACT: A device for measuring the output power of continuous lasers is described. As a pickup element it employs a wire-type resistance bolometer in the form of a flat single-layer spiral ($\phi \sim 0.05$ mm). The bolometer operates by comparing the thermal effects of the measured emission with the calibrated current on the pickup element. The comparison is performed on a balanced resistance bridge, one branch of which serves as a radiation pickup with a large thermal resistance coefficient. Thermal resistance coefficients of the other branches are small; the bridge is balanced by varying the current which passes through the pickup. Structurally, the system is contained in two units—a detection unit and a control unit. The former is in the form of a tube with diaphragms in which the radiation pickup is mounted. The radiation receiving area is 0.2 cm^2 for a 3.5-ohm resistance. The circuit diagram of the system is shown in the accompanying figure. All bridge

Card 1/2 UDC: 535.231.62:621.378.325

L 13166-66
ACC NR: AP6001585

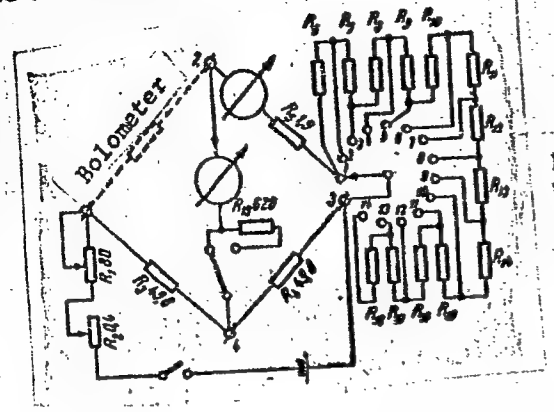

Fig. 1. Circuit diagram of the bolometric system

resistors are made of thick manganese wire. The power supply is from a 1—5-v source. Radiation measurements both in the visible and near infrared regions of the spectrum are possible. No calibration is required, and the results are given in absolute units in the range of 0.02—30 mw. Measurement accuracy is ±5%. A gas laser was used to study the operation of the device in the near-infrared region. [JR]
Orig. art. has: 2 figures and 1 table.

SUB CODE: 20, 09 SUBM DATE: 11Nov64/ ORIG REF: 005/ ATD PRESS: 4182

Card 2/2

ACC NR: AP6036379 SOURCE CODE: UR/0109/66/011/011/2074/2077

AUTHOR: Kats, L. I.; Kulikov, E. L.

ORG: none

TITLE: Feasability of using a periodic structure as a transmission line for the millimeter wave band

SOURCE: Radiotekhnika i elektronika, v. 11, no. 11, 1966, 2074-2077

TOPIC TAGS: transmission line, radio transmission, microwave component, millimeter wave, dielectric waveguide

ABSTRACT: A periodic structure made of flexible dielectric tape with thin metal transverse strips deposited on its surface is proposed for millimeter-wave transmission. The Maxwell equation for a two-dimensional problem is used to determine the geometric parameters and propagation data of the structure. The experiment was carried out using Teflon tape (thickness, 0.09 λ; width, 2.5 λ; and specific inductive capacitance, $\varepsilon = 2.08 - j\,0.02$). The periodic structure had the following dimensions (see Fig. 1): $2a = \frac{\lambda}{2} + 0.12\lambda$, $2d = 0.55\lambda$, $k(d - c) = 0.3$,

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ACC NR: AP6036379

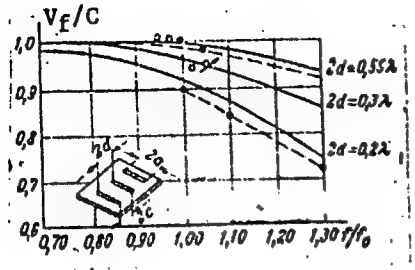

Fig. 1. Dispersion (a = 0.12λ, k(d - c) = 0.3)

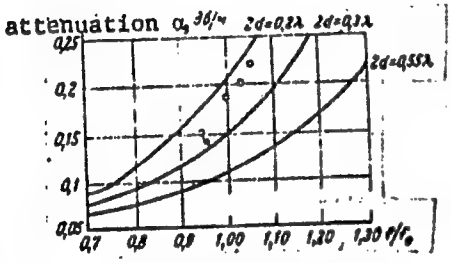

Fig. 2. Structure attenuation, db/m (a = 0.12λ, k(d - c) = 0.2) (points are experimental data)

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ACC NR: AP6036379

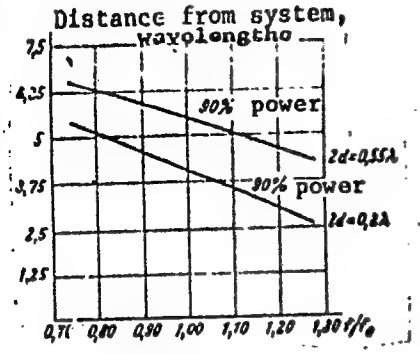

Fig. 3. Distance from the structure on which 90% of the transmitted power is concentrated ($a = 0.12\lambda$, $k(d - c) = 0.3$)

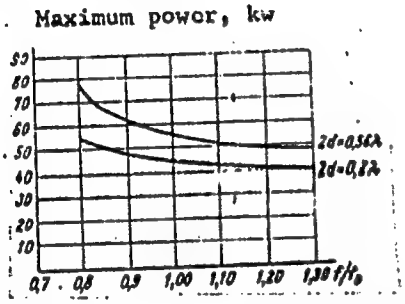

Fig. 4. Maximum theoretical power which can be transmitted by the structure ($a = 0.12\lambda$, $k(d - c) = 0.3$)

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ACC NR: AP6036379

and also $2a = \frac{\lambda}{2} + 0.13\lambda$, $2d = 0.3\lambda$, $k(d - c) = 0.2$, $k = \frac{2\pi}{\lambda}$. The results of the study are presented in Figs. 1—4. Orig. art. has: 6 figures and 1 formula.

SUB CODE: 09/ SUBM DATE: 21Jan66/ ORIG REF: 004/ OTH REF: 003/
ATD PRESS: 5106

Card 4/4

KATS, L.Kh., inzh.

Transient processes in a power system with a hydraulic torque convertor.
Energomashinostroenie 11 no.9:33-36 S '65. (MIRA 18:10)

EDNERAL, Fedor Prokop'yevich; FILIPPOV, Anatoliy Fedorovich; KRAMAROV, A.D., prof., doktor tekhn. nauk, retsenzent; TOLSTOGUZOV, N.V., dots., kand. tekhn. nauk, retsenzent; LEVIN, A.M., retsenzent; VISHNYAKOV, A.V., retsenzent; KATS, L.N., retsenzent; SHVEDOV, L.V., red.; ROZENTSVEYG, Ya.D., red. izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Calculations on the electrometallurgy of steel and ferroalloys]Raschety po elektrometallurgii stali i ferrosplavov. Izd.2., ispr. i dop. Moskva, Metallurgizdat, 1962. 230 p. (MIRA 15:12)

(Steel--Electrometallurgy)
(Iron alloys--Electrometallurgy)

KATS, L.N.; PROKOF'YEVA-BEL'GOVSKAYA, A.A.

Effect of the source of nitrogen nutrition on the structure and development of the producer of chlortetracycline (Actinomyces aureofaciens). TSitologiia 1 no.6:707-713 N-D '59. (MIRA 13:4)

1. TSitologicheskaya gruppa Laboratorii selektsii Vsesoyuznogo nauchno-issledovatel'skogo instituta antibiotikov, Moskva.
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA) (NITROGEN)
(ACTINOMYCES)

GUBERNIYEV, M.A.; TOMBOCHKINA, L.I.; KATS, L.N.

Polyphosphates in Act. aureofaciens. Antibiotiki 4 no.6:24-30 N-D '59. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(PHOSPHATES chem.)
(ACTINOMYCES chem.)

KATS, L. N. Cand Bio Sci -(diss) Cytology of Actinomyces aureofaciens Under Submersion Culture Conditions," Moscow, 1960, 17 pp, 180 copies, Moscow State U. im M. V. Lomonosov) (KL, 47/60, 100)

KATS, L.N.

Cytological investigation on the development of the producer of chlortetracycline in media containing various sources of carbohydrate nutrition. Antibiotiki 5 no.3:29-32 My-Je '60. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(STREPTOMYCES)

GUBERNIYEV, M.A.; UGOLEVA, N.A.; KATS, L.N.

Desoxyribonucleic acid in the mycelium of strain LS-112 of Actinomyces aureofaciens under conditions of submerged cultivation. Mikrobiologiia 29 no. 4:512-515 Jl-Ag '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov (VNIIA), Moskva.
(DESOXYRIBONUCLEIC ACID) (ACTINOMYCES)

PROKOP'YEVA-BEL'GOVSKAYA, A.A.; KATS, L.N.

Volutin in actinomycetes and its chemical nature. Mikrobiologiia 29 no.6:826-833 N-D '60. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ACTINOMYCES) (VOLUTIN)

KATS, L. N.

"The Chemical Nature of Volutin in Actinomycetes."

report submitted for the First Conference on the problems of Cyto and Histochemistry, Moscow, 19-21 Dec 1960.

All-Union Scientific Research Institute of Antibiotics, Moscow.

KATS, L.N.

Volutin in actinomyces and its chemical composition.

Report submitted to the Intl. Congress for Microbiology
Montreal, Canada 19-25 Aug 1962

KATS, L.N.

Chemical nature of the mycelial and spore walls in Actinomyces aureofaciens. Mikrobiologiia 32 no.3:459-464 My-Je'63
(MIRA 17:3)

1. Institut mikrobiologii, epidemiologii imeni Gamaleya.

LEVINA, Ye.N.; KATS, L.N.

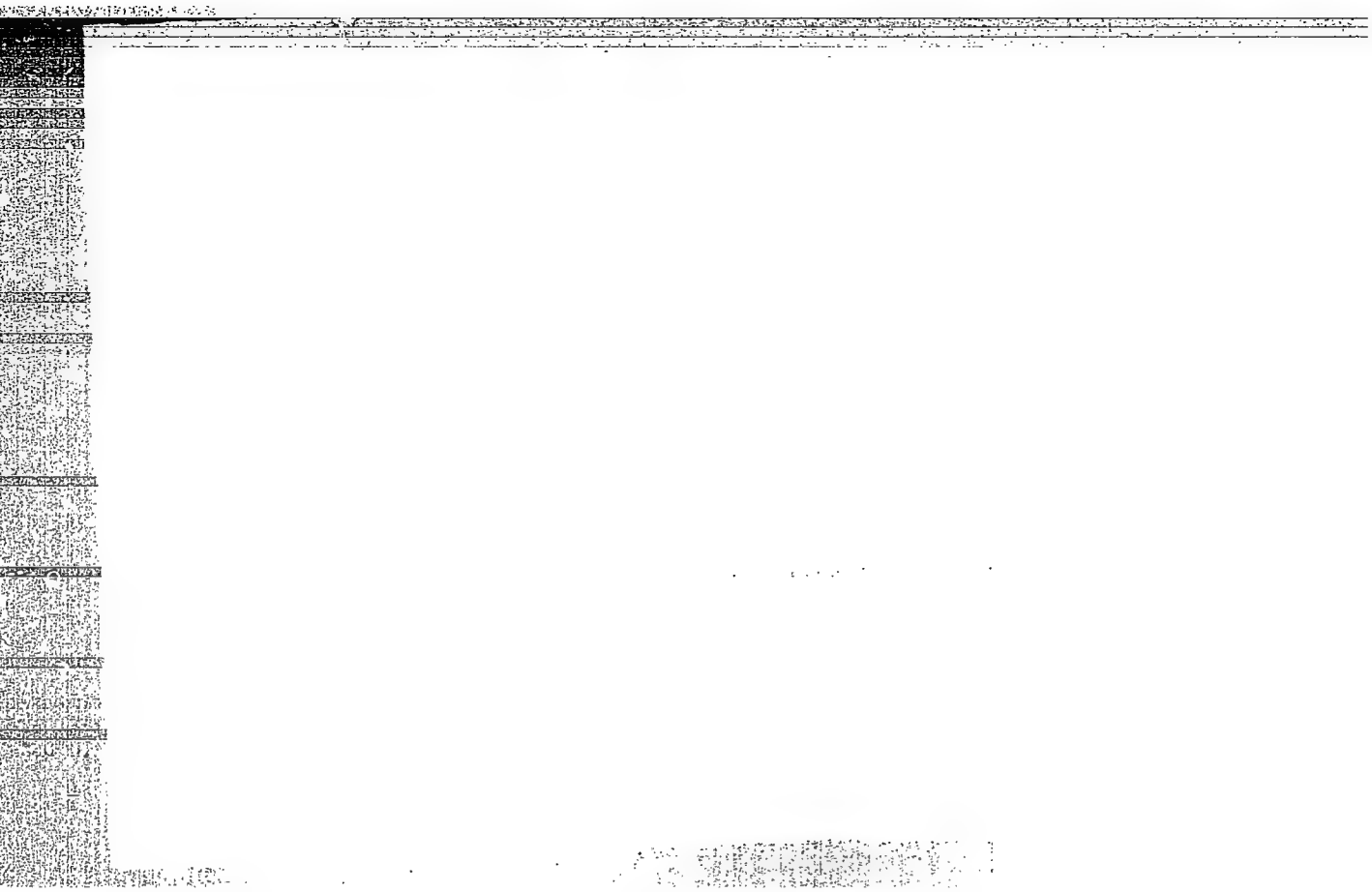
Antigenic structure of the vaccinal strain of Bacillus anthracis. Zhur. mikrobiol., epid. i immun. 41 no.10:85-89 '64. (MIRA 18:5)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

PAVLOVA, I.B.; KATS, L.N.

A new method of preparing micro-organism samples for electron microscopy. Mikrobiologiia 33 no.3:537-539 My-Je '64.
(...RA 18:12)

1. Institut epidemiologii, mikrobiologii imeni N.F.Gamalei AMN SSSR.



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721120016-1"

KATS, L.N.; PAVLOVA, I.B.

Electron microscopic and cytochemical study of nuclear elements of Bacillus cereus at different stages of culture development. Mikrobiologiia 34 no.4:636-642 Jl-Ag '65. (MIRA 18:10)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.

KATS, L.N.; PAVLOVA, I.B.

Photooptical and electron microscopic study of the effect of enzymes on bacterial cell. Mikrobiologiia 34 no.5:845-849 S-O '65. (MIRA 18:10)

1. Institut epidemiologii i mikrobiologii imeni N.F. Gamaleia, AMN SSSR.

KATS, L.V. (Perm')

State of public health service in Perm Province and prospects for its development. Trudy Perm. gos. med. inst. 43:392-397 '63. (MIRA 17:6)

1. Upravleniye zdravookhraneniya Permskogo oblastnogo otdela zdravookhraneniya.

KATS, L.Ya., inzh.

Potentialities of metal economy in rolling mill practice and a material interest in its achievements. Stal' 23 no.7:653-655 Jl '63. (MIRA 16:9)

1. Kuznetskiy metallurgicheskiy kombinat.
(Rolling (Metalwork)) (Incentives in industry)

KATS, L.Ya.

For rolled sheet supplier-consumer relations on a business-type basis. Stal' 21 no. 4:363-364 Ap '61. (MIRA 14:4)

1. Kuznetskiy metallurgicheskiy kombinat.
(Sheet steel—Prices)

SACHKO, N.S., kand.ekonom.nauk; YEL'TSOV, B.P., inzh.; KATS, L.Ya., inzh.

Developing work schedules for rolling mills with the help of mathematical methods. Stal' 24 no.7:650-655 Jl '64.
(MIR 18:1)

1. Sibirskiy metallurgicheskiy institut i Kuznetskiy metallurgicheskiy kombinat.

KATS, L.Ya., inzh.; YERSHOV, V.N., inzh.

Technical and economic results of producing lightweight I-bars and channels on KMK rolling mills. Stal' 20 no. 7:651-654 Jl '60. (MIRA 14:5)

1. Kuznetskiy metallurgicheskiy kombinat.
(Rolling (Metalwork)--Costs)

KATS, L.Z., kand.ekonom.nauk

Technological progress in the national economy and the efficient utilization of transportation. Zhel.dor.transp. 45 no.8:26-30 Ag '63. (MIRA 16:9)

(Freight and freightage)

KATS, L.Z., kand. ekon. nauk.

Modifying the structure of the fuel balance and shortening the distance of fuel haulage. Zhel. dor. transp. 40 no.12:23-28 D '58. (MIRA 12:3)

(Railroads--Fuel)

KATS, Leyba Zelikovich; AL'TERMAN, S.L., red.; KHITROV, P.A., tekhn.red.

[Transportation of coal by rail] Perevozki uglia po zheleznym dorogam. Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 182 p. (MIRA 12:12)

(Coal--Transportation)

KATS, M.

Chemical production from waste. Prom.koop. 13 no.6:29 Je '59.
(MIRA 12:9)

1. Starshiy inzhener tekhnicheskogo otdela oblpromsoveta, g.Leningrad.
(Leningrad--Salvage (Waste, etc.)

ZEKTSER, D.M., inzh.; KATS, M.A., inzh.

Panels for double electric power supply. Avtom., telem. i sviaz' 3 no.2:11-13 F '59. (MIRA 12:4)
(Telecommunication—Equipment and supplies)

S/194/62/000/006/156/232
D201/D308

9,1400

AUTHORS: Kats, M.A., Anisimov, Ye.V., and Sovetov, N.M.

TITLE: Some dispersion properties of a tape helix with a central conductor

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, 21, abstract 6Zh142 (Nauchn. yezhegodnik. Saratovsk. un-t, Fiz. fak. i N.-i. in-t mekhan. i fiz. 1955, Saratov, 1960, 116-119)

TEXT: The derivation and analysis of the dispersion equation of a tape helix with a central conductor are given. The values of the system parameters are determined for which the effect of central conductor is especially strong; the appearance of regions of anomalous dispersion is pointed out. [Abstracter's note: Complete translation.]

Card 1/1

KATS, M.A., arkhitektor

Unified general plan of the "Novyye Chekany" industrial center.
Prom. stroi. 42 no.1:6-7 '65. (MIRA 18:3)

1. Proyektnyy institut No.3 Gosstroya SSSR, Odessa.

MESHKOV, D. A., insh.; TEL'NYUK-ADAMCHUK, V. V., insh.; KATS, M. E., insh.

Analysis of the operation of a cupola furnace with water cooling of the melting zone. Mashinostroenie no.5:47-49 S-O '62. (MIRA 16:1)

1. Novo-Kramatorskiy mashinostroitel'nyy zavod.

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CHERNETENKO, B.N.; KATS, M.E.

What delays the adoption of the manufacture of cast finishing tiles. Stroi. mat. 11 no.5:3 My '65. (MIRA 18:9)

1. Direktor Leningradskogo kombinata stroitel'nykh materialov "Pobeda" (for Chernetenko). 2. Glavnyy inzhener Leningradskogo kombinata stroitel'nykh materialov "Pobeda" (for Kats).

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Mechanization and automation at a brickmaking plant. Stroi. mat. no.11:6-8 N '65. (MIRA 18:12)

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